Teaching Nutrition through Math, Science, Language Arts and Health Enhancement

# Eat Smart Be Smart

Grade Level: Fourth Lesson Time: 2 parts, 80 minutes total

Integrated Core Subjects: Math and Health Enhancement

You Are What You

Eat

Montana Content Standard: Math 1 & 5: Students engage in the mathematical processes of problem solving and reasoning, estimation, communication, connections and applications, and using appropriate technology; students demonstrate understanding of measurable attributes and an ability to use measurement processes.

Montana Content Standard: Health Enhancement 1, 5 & 7: Students have a basic knowledge and understanding of concepts that promote comprehensive health; students demonstrate the ability to use critical thinking and decision making to enhance health; students demonstrate health-enhancing behaviors.

Objectives: The students will chart their foods eaten for one day and list each food or drink in the correct food group; record the amount of physical activity they did for one day; and evaluate their food choices and level of physical activity by comparing them to the MyPlate recommendations for children their age; understand the importance of increasing fruits and vegetables intake and setting a goal and plan to try a new fruit or vegetable.

# Lesson/Activity: DAY ONE: 20 minutes

- 1. Distribute the Choose MyPlate work sheet and explain that students will be recording what they eat and drink for one day (24 hours). The students record the food or beverage and the amount and all foods, drinks, and snacks they eat for the entire day. Have them write the food in each section of the plate. For foods like condiments or "sometime foods (like jello) that are not in a food group. Have them make of list of those items on the outside of the plate graphic.
- 2. Stress that it is very important to estimate the portion size by using the MyPlate recommended servings and the serving size hand out. Review MyPlate serving sizes for one food from each food group. This should be a review for the students from the MyPlate for Montana Kids lesson and the Food Math lesson. Have the measurement tools and common items like a tennis ball, or deck of cards handy as visual aids. Using the three food items, green beans, cold cereal, peanut butter; ask student volunteers to portion out how much they would eat of one food and then have another student determine how many servings it is using a common measuring tool or their hand. Ask for volunteers to tell the class a food they may have eaten for breakfast or snack today, what food group it is from, what the portion size was, and how many servings it was. Once the students are comfortable with how to estimate serving sizes, refer to the MyPlate for Kids
- 3. In order to emphasize the concept that we need to balance our food with our play (physical activity), ask the students to write down on the back of the worksheet the minutes of physical activity they do for the

# Materials Needed

- A copy of the Choose My Plate sheet for each student.
- Food advertisements from the newspaper (students will collect food advertisements of foods or food labels of products they eat for homework on day 1).
- Visual aids: 1 cup and 1/2 cup measuring cups, a set of measuring spoons (1 Tablespoon, 1 teaspoon), 1 tennis ball, 1 baseball, 4 dice, 1 deck of cards, small computer mouse.
- Three food items: A can of green beans or other vegetable, a box of cold cereal, jar of peanut butter.
- Teacher References: Is it a Portion or a Serving, Serving Sizes are in Your Hand, What is a Serving Size, How Much Do You Need?; My Daily Plan

same 24 hour period. Remind the students to include activity during health enhancement classes, in after-school programs and if they walk or ride their bike to school. Ask for student volunteers to give the class an example of what they might record for physical activity. Summarize the assignment and ask the students to start recording at today's lunch. After lunch, provide a few minutes to the students to write down what they are for lunch.

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## DAY TWO: This lesson should be done after lunch to allow for the full 24-hour period.

- 4. Have students take out the Choose MyPlate sheet they completed at home and ask them if they were able to write down their food and physical activities for the 24 hours.
- 5. Did the students categorize the foods and the portion size they ate into the different food groups by filling in the correct section of the plate. You may need to help students with combination foods. For example, a slice of pizza could fit into the grain, milk, vegetable, and meat group. Encourage kids to break down the combination foods by thinking of everything in them and do their best to put it into the correct groups.
- 6. Have the students add up their totals for each food group and record the total servings. Have them compare their daily totals to the recommended totals for each food group.
- 7. If students have eaten foods that don't fit into the five food groups tell them that these are called sometimes foods and are usually oils or contain high amounts of sugar so they should be limited. Tell students that eating small amounts of these types of foods (chips, cookies, doughnuts, candy) is acceptable but the majority of their foods each day should come from the five food groups.
- 8. Once they have had time to evaluate if they met the recommended number of servings, have a class discussion on how they could improve their food intake to meet the recommendations.
- 9. Ask the children to total the number of minutes they were physically active. Physical activity will be evaluated by the number of minutes they got in the 24 hours. It is recommended that children get at least 60 minutes a day. Give the children time to count up the minutes of physical activity and discuss as a class.
- 10. To conclude the lesson, ask students to rate themselves on the bottom of the work sheet. If they didn't meet each recommendation, ask the students to set a food or activity goal for tomorrow using a small step. For example: My food goal for tomorrow is to eat one piece of fruit at breakfast or to drink one more cup of milk or dairy food like yogurt. My activity goal for tomorrow is to jump rope or play tag at recess or to walk my dog when I get home from school. Remember the goal is to get 60 minutes a day.



Remind students...You are What You Eat!

# Outcome Goals

Students will be able to name the food groups that make up MyPlate.

Students will demonstrate the ability to record their food and physical activity for 24 hours and compare their intake and physical activity levels to the recommended amounts for children.

Students will set one food and physical activity goal.

# Extending the Lesson

recommendations.

This lesson will allow the students to further evaluate how students are eating as a class. Have the students work in groups to create a graph about how many students met the recommendation for each food group. Are there any food groups that most of the students are consuming too little of or too much of? How many of the students met the 60-minute recommendation for physical activity? Have a class discussion on how they can improve in meeting their food or physical activity

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Acknowledgments/Adapted

## From

U. S. Department of Agriculture Team Nutrition/ MyPlate and Denise Zimmer, RD